

12/08/98

jc408 U.S. PTO

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PTO/SB/05 (4/98)

**UTILITY
PATENT APPLICATION
TRANSMITTAL**

(Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))

Attorney Docket No. RCA 89,291

First Inventor or Application Identifier F. Zucker

Title Magneto-Optical Recording Or Reproducing...

Express Mail Label No. EL197058627US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ * Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☒ Specification [Total Pages 13]
(preferred arrangement set forth below)
- Descriptive title of the Invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to Microfiche Appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
3. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 2]
4. Oath or Declaration [Total Pages 1]
- a. ☒ Newly executed (original or copy)
- b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d))
(for continuation/divisional with Box 16 completed)
- i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting
inventor(s) named in the prior application,
see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).

NOTE FOR ITEMS 1 & 13: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).**ADDRESS TO:** Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

5. ☐ Microfiche Computer Program (Appendix)
6. ☐ Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)
- a. ☐ Computer Readable Copy
- b. ☐ Paper Copy (identical to computer copy)
- c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

7. ☒ Assignment Papers (cover sheet & document(s))
8. ☒ 37 C.F.R. § 3.73(b) Statement ☐ Power of Attorney
(when there is an assignee)
9. ☐ English Translation Document (if applicable)
10. ☒ Information Disclosure Statement (IDS)/PTO-1449 ☒ Copies of IDS Citations
11. ☐ Preliminary Amendment
12. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
13. ☐ * Small Entity Statement(s) ☐ Statement filed in prior application, Status still proper and desired
(PTO/SB/09-12)
14. ☒ Certified Copy of Priority Document(s)
(if foreign priority is claimed)
15. ☐ Other:

16. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No: _____
Prior application information: Examiner _____ Group / Art Unit: _____**For CONTINUATION or DIVISIONAL APPS only:** The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.**17. CORRESPONDENCE ADDRESS**☐ Customer Number or Bar Code Labelor ☐ Correspondence address below

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| | | | | |
|---------|---|-----------|----------------|--------------------|
| Name | Joseph S. Tripoli | | | |
| | GE & RCA Licensing Management Operation, Inc. | | | |
| Address | Two Independence Way, P.O. Box 5312 | | | |
| | Patent Operations | | | |
| City | Princeton | State | NJ | Zip Code 08543 |
| Country | USA | Telephone | (609) 734-9400 | Fax (609) 734-9700 |

| | | | |
|-------------------|-------------------------|-----------------------------------|----------|
| Name (Print/Type) | Eric P. Herrmann | Registration No. (Attorney/Agent) | 29,169 |
| Signature | <i>Eric P. Herrmann</i> | Date | 12/08/98 |

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FEE TRANSMITTAL

Patent fees are subject to annual revision on October 1.
 These are the fees effective October 1, 1997.
 Small Entity payments must be supported by a small entity statement,
 otherwise large entity fees must be paid. See Forms PTO/SB/09-12.
 See 37 C.F.R. §§ 1.27 and 1.28.

TOTAL AMOUNT OF PAYMENT (\$) 800.00

Complete if Known

| | |
|----------------------|----------------|
| Application Number | To Be Assigned |
| Filing Date | Herewith |
| First Named Inventor | F. Zucker |
| Examiner Name | To Be Assigned |
| Group / Art Unit | Unknown |
| Attorney Docket No. | RCA 89,291 |

METHOD OF PAYMENT (check one)

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

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 Deposit Account Name GE&RCA Licensing Mgt.

- ☒ Charge Any Additional Fee Required Under 37 C.F.R. §§ 1.16 and 1.17 ☐ Charge the Issue Fee Set in 37 C.F.R. § 1.18 at the Mailing of the Notice of Allowance

2. ☐ Payment Enclosed:
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FEE CALCULATION

1. BASIC FILING FEE

| Large Entity Code | Large Entity Fee (\$) | Small Entity Code | Small Entity Fee (\$) | Fee Description | Fee Paid |
|-------------------|-----------------------|-------------------|-----------------------|------------------------|----------|
| 101 | 790 | 201 | 395 | Utility filing fee | 760 |
| 106 | 330 | 206 | 165 | Design filing fee | |
| 107 | 540 | 207 | 270 | Plant filing fee | |
| 108 | 790 | 208 | 395 | Reissue filing fee | |
| 114 | 150 | 214 | 75 | Provisional filing fee | |

SUBTOTAL (1) (\$) 760.00

2. EXTRA CLAIM FEES

| Total Claims | Extra Claims | Fee from below | Fee Paid |
|--------------------|--------------|----------------|----------|
| 10 | -20** = - | X | 0 |
| 2 | -3** = - | X | 0 |
| Multiple Dependent | | | |

**or number previously paid, if greater; For Reissues, see below

| Large Entity Code | Large Entity Fee (\$) | Small Entity Code | Small Entity Fee (\$) | Fee Description | Fee Paid |
|-------------------|-----------------------|-------------------|-----------------------|--|----------|
| 103 | 22 | 203 | 11 | Claims in excess of 20 | |
| 102 | 82 | 202 | 41 | Independent claims in excess of 3 | |
| 104 | 270 | 204 | 135 | Multiple dependent claim, if not paid | |
| 109 | 82 | 209 | 41 | ** Reissue independent claims over original patent | |
| 110 | 22 | 210 | 11 | ** Reissue claims in excess of 20 and over original patent | |

SUBTOTAL (2) (\$) 0

FEE CALCULATION (continued)

3. ADDITIONAL FEES

| Large Entity Code | Large Entity Fee (\$) | Small Entity Code | Small Entity Fee (\$) | Fee Description | Fee Paid |
|-------------------|-----------------------|-------------------|-----------------------|--|----------|
| 105 | 130 | 205 | 65 | Surcharge - late filing fee or oath | |
| 127 | 50 | 227 | 25 | Surcharge - late provisional filing fee or cover sheet. | |
| 139 | 130 | 139 | 130 | Non-English specification | |
| 147 | 2,520 | 147 | 2,520 | For filing a request for reexamination | |
| 112 | 920* | 112 | 920* | Requesting publication of SIR prior to Examiner action | |
| 113 | 1,840* | 113 | 1,840* | Requesting publication of SIR after Examiner action | |
| 115 | 110 | 215 | 55 | Extension for reply within first month | |
| 116 | 400 | 216 | 200 | Extension for reply within second month | |
| 117 | 950 | 217 | 475 | Extension for reply within third month | |
| 118 | 1,510 | 218 | 755 | Extension for reply within fourth month | |
| 128 | 2,060 | 228 | 1,030 | Extension for reply within fifth month | |
| 119 | 310 | 219 | 155 | Notice of Appeal | |
| 120 | 310 | 220 | 155 | Filing a brief in support of an appeal | |
| 121 | 270 | 221 | 135 | Request for oral hearing | |
| 138 | 1,510 | 138 | 1,510 | Petition to institute a public use proceeding | |
| 140 | 110 | 240 | 55 | Petition to revive - unavoidable | |
| 141 | 1,320 | 241 | 660 | Petition to revive - unintentional | |
| 142 | 1,320 | 242 | 660 | Utility issue fee (or reissue) | |
| 143 | 450 | 243 | 225 | Design issue fee | |
| 144 | 670 | 244 | 335 | Plant issue fee | |
| 122 | 130 | 122 | 130 | Petitions to the Commissioner | |
| 123 | 50 | 123 | 50 | Petitions related to provisional applications | |
| 126 | 240 | 126 | 240 | Submission of Information Disclosure Stmt | |
| 581 | 40 | 581 | 40 | Recording each patent assignment per property (times number of properties) | 40 |
| 146 | 790 | 246 | 395 | Filing a submission after final rejection (37 CFR 1.129(a)) | |
| 149 | 790 | 249 | 395 | For each additional invention to be examined (37 CFR 1.129(b)) | |

Other fee (specify) _____

Other fee (specify) _____

* Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 40.00

SUBMITTED BY

Typed or Printed Name Eric P. Herrmann

Signature Eric P. Herrmann

Date 12/08/98

Complete (if applicable)

Reg. Number 29,169

Deposit Account User ID _____

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PD970090 US
D94/065-Ku-121297

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Title

Magneto-optical Recording or Reproducing Device

5 Field of the Invention

The invention relates to a magneto-optical recording or a magneto-optical reproducing device having an erasing facility for information recorded on a magneto-optical recording medium, it also being possible for such a recording or reproducing device to be used, for example, for the continuous magneto-optical recording, buffering and reproduction of video and/or audio signals.

15 Background of the Invention

Magneto-optical recording media and devices for recording and reproducing information stored on magneto-optical recording media are generally known. A known magneto-optical recording medium is the magneto-optical disc, which is also denoted as MOD or MO and in which there is arranged behind a transparent layer a magneto-optical layer on which information or data are stored and from which the stored information or data can be read. In order to store or write information or data onto a magneto-optical disc, the magneto-optical layer is heated by a laser beam, focused onto the disc, to a temperature in the region of the Curie or compensation temperature. Arranged behind the disc is an electromagnet which magnetizes the region heated by the laser beam in one direction of magnetization or the other. A magneto-optical writing device therefore comprises an optical scanning device which co-operates with an electromagnet and is denoted as a pick-up. After the laser beam is switched off, the heated site cools off again below the compensation temperature, and the direction of magnetization fixed by the electromagnet is maintained. It is, so as to say, frozen. In this case, one direction of magnetization

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corresponds to a logic one while the opposite direction of magnetization represents a logic zero.

The information or data are read using a principle which is based on the Kerr effect and on the fact that the plane of polarization of a linearly polarized light beam is rotated by an angle in the case of reflection at a magnetized mirror. The plane of polarization of the reflected light beam is rotated to the right or left in accordance with the direction of magnetization of the mirror. The rotation of the plane of polarization of the light beam reflected by the disc is detected by an optical scanning device, and a corresponding information or data signal is generated.

Provided for the purpose of magnetizing the magneto-optical layer is an electromagnet which can magnetize a region which is swept over by an optical scanning device. Magneto-optical recording devices are known in which information or data already stored on the recording medium must be erased before new information or data can be recorded. For this purpose, the magneto-optical layer is heated by the laser up to the Curie or compensation temperature at the sites at which the new information or data are to be stored, and magnetized in one direction. The plate is initialized. The laser power is switched between a small and a large value as a function of the bit to be stored so as to record the new information or data. For example, if a logic zero is stored at the previously erased site, the laser operates at the low power so that the Curie or compensation temperature is not reached. For the purpose of recording a logic one, by contrast, the laser heats the new site to be written on up to the Curie or compensation temperature so that said site can be remagnetized. By contrast with this, there are also already known magneto-optical recording devices in which already stored information or data are directly overwritten on the recording medium without firstly having to be

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erased. For the purpose of reliable remagnetization, this method presupposes a high field strength which must be changed over at high speed in order to record new information or data. Since changing over high field strengths at high speed leads in a known way to intense heating of the electromagnet, the data rate up to which this method can be applied is limited. A very high data rate such as required, for example, to store a television signal would lead to impermissible overheating of the write head. In order to store new information or data at a high data rate on a magneto-optical recording medium already written onto, it is therefore necessary for the stored information or data to be erased in advance in accordance with the abovenamed method. For this purpose, before recording it is necessary to provide a time consuming erasing pass, which can be carried out by the magneto-optical writing device provided for recording information or data. In order to permit information or data to be recorded immediately, there is therefore a need for an additional magneto-optical writing device which can then be used to erase in advance information or data already recorded on the magneto-optical recording medium. The magneto-optical recording medium is then initialized by the magneto-optical writing device, also denoted as an erase pick-up.

Summary of the Invention

It is the object of the invention to create a magneto-optical recording or reproducing device which permits information or data recorded on a magneto-optical recording medium to be overwritten with information or data of a high data rate without a magneto-optical writing device for erasing recorded information or data, and which requires a low outlay.

This object is achieved by means of the features specified in the main claim. Advantageous

The invention proceeds from the finding that overwriting directly with a high data rate is rendered possible when there is arranged upstream of the magneto-optical writing device or upstream of the write head an erasing magnet which is, for example, a permanent magnet or electromagnet whose field strength is sufficient to initialize a region upstream of a track to be written without the assistance of a laser. It has been found that magneto-optical recording media can be initialized by a sufficiently strong magnetic field even without the assistance of a laser. This measure renders an erasing pass and an erase pick-up no longer necessary. Information or data already recorded on a magneto-optical disc are directly overwritten with the new information or data, which can also have a high data rate, without a previous erasing pass and a low outlay is required. Recording information or data onto the magneto-optical recording medium is then performed, for example, in a known way using a constant magnetic field and pulsed laser, and the erasing magnet has a magnetic field of opposite polarity to the magnet of the writing device.

In the case of a magneto-optical recording and reproducing device for continuous recording and simultaneous or continuous reproduction of information

Although the invention advantageously permits overwriting of information or data stored on magneto-optical recording media with information or data of a high data rate without a magneto-optical writing device
15 for erasing recorded information, it is not, however, limited to recording or reproducing information or data with a high data rate.

20 In an exemplary embodiment, the invention is explained
in more detail with the aid of drawings, in which:

Figure 2 shows a sketch of the principle of a magneto-optical recording device having means for distancing the erasing facility.

Reference symbols are used uniformly in the Figures. For the purpose of simplification, it is only elements of a magneto-optical recording and reproducing device having an erasing facility for information or data recorded on a magneto-optical recording medium which are specified in the sketch of the principle, represented in Figure 1. However, by omitting

appropriate modules the device can also be designed as a magneto-optical reproducing device having an erasing facility or as a magneto-optical recording device having an erasing facility. The magneto-optical recording and reproducing device represented in Figure 1 can advantageously be used both as a conventional recording and reproducing device and as a magneto-optical recording and reproducing device for continuous recording and reproduction. In accordance with this design, which can be used, for example, for monitoring purposes in banks or for time-shifted reproduction of television transmissions, a magneto-optical recording medium sectioned along its diameter is represented in perspective in Figure 1. By means of a write head, which comprises a writing magnet SM and a first optical scanning device OPU1, information or data are written onto the magneto-optical recording medium inserted into the device. The writing magnet SM and the first optical scanning device OPU1 are arranged, in accordance with Figure 1, in a fashion mechanically connected to one another and opposite one another, while the magneto-optical recording medium is located between them.

Since recordings are made on magneto-optical recording media in a track from the inside to the outside, new information or data are recorded in a first region NR of the magneto-optical recording medium in accordance with Figure 1. The write head is, for example, designed by analogy with known write heads. Also provided in accordance with Figure 1 is an erasing facility which is formed in accordance with the invention exclusively by an erasing magnet LM and is arranged upstream of the write head in the scanning direction of the magneto-optical recording medium. The erasing magnet LM is used to initialise the magneto-optical recording medium directly before the recording of new information or data. The result is to produce on the magneto-optical recording medium upstream of the writing magnet SM a second region AE in which

information or data previously stored on the magneto-optical recording medium are erased. The initialization of the magneto-optical recording medium before the recording of new information or data renders it possible, in particular, for regions of the magneto-optical recording medium already written on earlier to be recorded and/or overwritten with a high data rate such as is required, for example, to record video signals.

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10 The erasing magnet LM is provided in Figure 1 as a so-called permanent magnet which is arranged next to the writing magnet SM on the same side relative to the magneto-optical recording medium, and has a direction of magnetization opposite to the writing magnet SM. In addition, both the writing magnet SM and the erasing magnet LM can optionally also be designed as electromagnets. It is to be seen that the erasing facility consists only of an erasing magnet LM, and that no optical scanning device assigned to the erasing magnet LM is provided. No laser which heats the magneto-optical recording medium is provided for erasing stored information or data. In order, nevertheless, to achieve erasure of information or data already stored on a magneto-optical recording medium, and/or to initialize the magneto-optical recording medium, provision is made of an erasing magnet LM with a field strength sufficient to erase and/or initialize the magneto-optical recording medium. The field strength of the erasing magnet LM, which is greater by comparison with the field strength of the writing magnet SM, is used to erase information or data stored on the magneto-optical recording medium and to initialize the magneto-optical recording medium even without the assistance of a laser. This comparatively greater field strength of the erasing magnet LM leads, if appropriate, to the fact that, in accordance with the Figure, a plurality of tracks of the magneto-optical recording medium are simultaneously erased

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and/or initialized, thus producing on the magneto-optical recording medium a third region BE, which corresponds to a region currently erased and/or currently initialized. In particular in a device for
5 the continuous recording or simultaneous reproduction of information or data, the simultaneous erasure of a plurality of tracks is insignificant, since the erasure region is small by comparison with the recording region and the progress of the erasure corresponds to that of
10 the writing.

In accordance with Figure 1, the erasing magnet LM is preferably mechanically connected to the write head, and is thereby guided over the magneto-optical recording medium in advance of the write head in the
15 normal write or read direction of the magneto-optical recording medium. In the case of an optical scanning device OPU1 comprising coarse and fine drives, the mechanical connection between the writing magnet SM and the erasing magnet LM is provided in such a way that
20 the writing magnet SM and the erasing magnet LM are connected to the coarse drive of the optical scanning device OPU1, or follow of the coarse drive. In an embodiment according to Figure 1 which uses permanent magnets and laser modulation as the selected writing
25 method, only slight requirements are placed on the quality and/or accuracy of the positioning and tracking of the writing magnet SM and the erasing magnet LM. It is sufficient to connect the writing magnet SM and erasing magnet LM to the optical scanning device OPU1
30 in a fashion corresponding to a metal or plastic angle which is produced with moderate precision. In an embodiment in accordance with Figure 1, a means is to be provided for deactivating the erasing magnet LM, in order not to erase recorded information or data during
35 a jump into the inner region of the magneto-optical recording medium. For this purpose, the connection between the erasing magnet LM and the writing device is, if appropriate, to be provided, in accordance with

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Patent Claims

1. Magneto-optical recording or reproducing device
5 having an erasing facility and, in the case of a
recording device, having a writing device, formed from
a writing magnet and an optical scanning device , for
overwriting information or data recorded on a magneto-
optical recording medium, wherein
10 said erasing facility is formed by an erasing magnet
having a field strength sufficient to initialize the
magneto-optical recording medium.
2. Magneto-optical recording or reproducing device
15 according to Claim 1, wherein the erasing magnet has a
mechanical connection to the writing device.
3. Magneto-optical recording or reproducing device
20 according to Claim 1, wherein the erasing magnet has a
mechanical connection to the writing device and the
mechanical connection of the erasing magnet to the
writing device is a joint.
4. Magneto-optical recording or reproducing device
25 according to Claim 1, wherein the erasing magnet is an
erasing magnet having a field strength sufficient to
initialize the magneto-optical recording medium without
the assistance of a laser.
- 30 5. Magneto-optical recording or reproducing device
according to Claim 1, wherein the erasing facility is
an erasing magnet having a magnetic field which is
directed opposite to a magnet of the writing device and
which has a field strength sufficient to initialize the
35 magneto-optical recording medium.

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6. Magneto-optical recording or reproducing device according to Claim 1, wherein the erasing magnet is a permanent magnet.

5 7. Magneto-optical recording or reproducing device according to Claim 1, wherein the erasing magnet is connected to a means for deactivating the erasing magnet.

10 8. Magneto-optical recording or reproducing device according to Claim 1, wherein the erasing magnet is connected to a means for deactivating the erasing magnet and the means for deactivating the erasing magnet is an electromagnet.

15 9. Magneto-optical recording or reproducing device according to Claim 1, wherein the erasing magnet is an electromagnet.

20 10. Magneto-optical recording or reproducing device having an erasing facility and, in the case of a recording device, having a writing device, formed from a writing magnet and an optical scanning device, for overwriting information or data recorded on a magneto-
25 optical recording medium, comprising:
a first optical scanning device connected to a writing magnet for recording data on the magneto-optical recording medium,
an erasing magnet for initializing the magneto-optical
30 recording medium, and
a second optical scanning device for reproducing information or data stored on the magneto-optical recording medium,
for the purpose of simultaneously recording and
35 reproducing information or data.

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Abstract

The invention relates to a magneto-optical recording or reproducing device having an erasing facility for information or data recorded on a magneto-optical recording medium.

According to the invention, the erasing facility is formed by an erasing magnet having a field strength sufficient to initialize the magneto-optical recording medium without the assistance of a laser and/or an optical scanning device.

The field of application of the invention relates to magneto-optical recording or reproducing devices.

Figure 1

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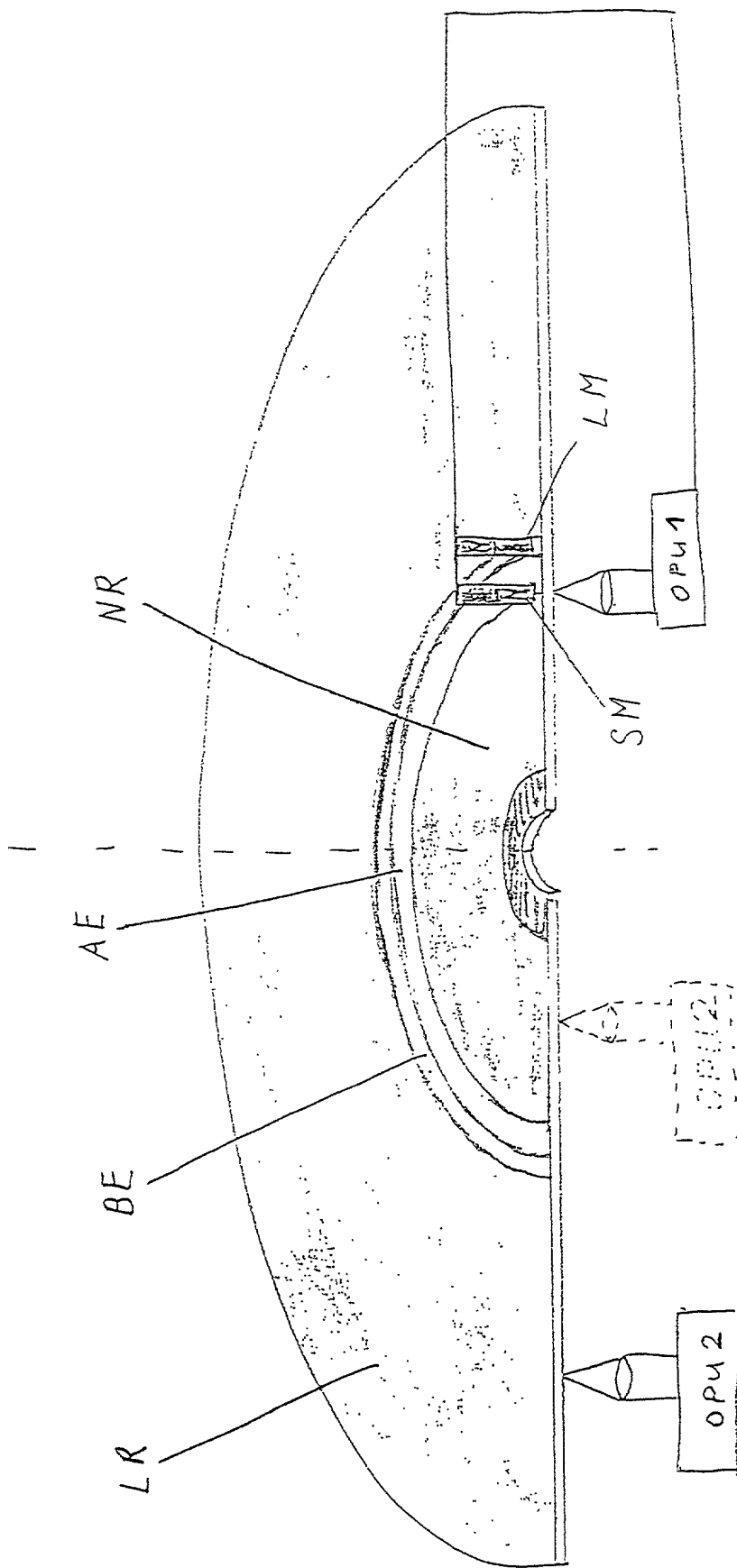


Fig. 1

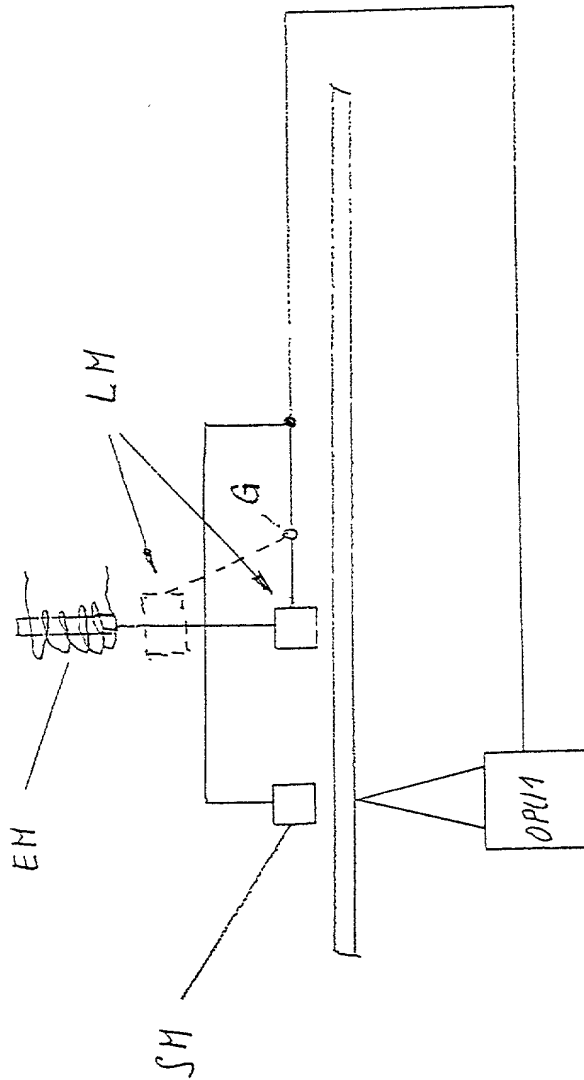


Fig-2

DECLARATION FOR UNITED STATES PATENT APPLICATION,
POWER OF ATTORNEY, DESIGNATION OF CORRESPONDENCE ADDRESS

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name, and that I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

MAGNETO-OPTICAL RECORDING OR REPRODUCING DEVICE

the specification of which

(CHECK ONE) (xx) is attached hereto.

() was filed on

, Application Serial. No.

and was amended on .

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with 37 CFR 1.56(a).

I hereby claim foreign priority benefits under 35 USC 119 of any foreign application(s) for patent, utility model, design or inventor's certificate having a filing date before that of the application(s) on which priority is claimed:

| Prior Foreign Application(s) | | | Priority Claimed | |
|------------------------------|---------|-------------------|------------------|----|
| Number | Country | Date Filed | Yes | No |
| 197 56 458.5 | DE | December 18, 1997 | xx | |

I hereby claim the benefit under 35 USC 120 of any US Application(s) listed below, and, insofar as the subject matter of each of the claims of this Application is not disclosed in the prior US application in the manner provided by the first paragraph of 35 USC 112, I acknowledge the duty to disclose information which is material to the examination of this application in accordance with 37 CFR 1.56(a).

Serial No.: _____ Filed: _____

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment, or both, under of 18 USC 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I hereby appoint the following attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: Joseph S. Tripoli (Reg. No. 26,040) and Frederick A. Wein (Reg. No. 27,168) Telephone: (609) 734-9518.

Address all correspondence to Joseph S. Tripoli, Patent Operations - GE and RCA - Licensing Management Operation, Inc. - CN 5312 - Princeton, New Jersey 08543-0028.

Signature: [Signature] Date: 28th day of Sept., 1998.

Sole or First Joint Inventor: Friedhelm Zucker

Citizenship: DE

Residence and Post Office Address:

Innsbruckerstr. 4
D-78052 Villingen-Schwenningen
Germany

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Friedhelm Zucker

Serial No. : To Be Assigned

Group Art Unit: Unknown

Filed : Herewith

For : MAGNETO-OPTICAL RECORDING OR REPRODUCING
SERVICE

APPOINTMENT OF ASSOCIATE ATTORNEY

Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

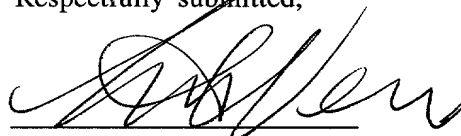
Sir:

I, Frederick A. Wein, an attorney of record, hereby appoint Eric P. Herrmann, Reg. No. 29,169 as an associate attorney in the above-identified application, with full power to prosecute the above-identified application, to make alterations and amendments therein, and to transact all business in the Patent and Trademark Office connected therewith.

PLEASE ADDRESS ALL FUTURE COMMUNICATIONS TO:

Joseph S. Tripoli
Patent Operations
GE & RCA Licensing Management Operation, Inc.
P.O. Box 5312
Princeton, NJ 08543-5312

Respectfully submitted,

By 
Frederick A. Wein, Attorney
Reg. No. 27,168

Dec. 8, 1998

Patent Operation
GE/RCA Licensing Management Operation, Inc.
P.O. Box 5312
Princeton, New Jersey 08543

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